

**TESTIMONY OF DR. KATHLEEN HOGAN
PRINCIPAL DEPUTY UNDER SECRETARY
AND ACTING UNDER SECRETARY FOR INFRASTRUCTURE
AND DR. GERI RICHMOND, UNDER SECRETARY FOR SCIENCE & INNOVATION
U.S. DEPARTMENT OF ENERGY
BEFORE THE
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
SUBCOMMITTEES ON ENERGY AND INVESTIGATIONS & OVERSIGHT
UNITED STATES HOUSE OF REPRESENTATIVES
REGARDING
IMPLEMENTATION OF THE INFRASTRUCTURE INVESTMENT AND JOBS ACT,
INFLATION REDUCTION ACT, AND CHIPS AND SCIENCE ACT
MAY 10, 2023**

Introduction

Chairmen Williams and Obernolte, Ranking Members Bowman and Foushee, and distinguished Members of the Subcommittees, thank you for this opportunity to provide an update on the Department of Energy's (DOE or the Department) progress in implementing the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL), the Inflation Reduction Act (IRA), and the CHIPS and Science Act.

These three bills are truly historic investments in renewing American infrastructure for decades to come. We are together rebuilding American manufacturing and increasing American competitiveness. We are creating millions of lasting, good-paying jobs and helping communities across the country to tackle huge challenges and take advantage of opportunities. We are assisting communities in realizing the impacts of rapid energy technology transitions and ensuring that cities and towns have access to new energy technologies that can reduce families' and business' energy bills as quickly as they can be deployed.

We at the DOE feel a sense of urgency so that our fellow Americans in all parts of our country can benefit from these laws. We understand that we are entrusted with investments being made by our fellow taxpayers. By implementing the BIL, IRA, and CHIPS and Science Acts, DOE will strive

to lower energy costs for Americans, improve reliability and energy security, and ensure America is positioned to lead the world in manufacturing the energy technologies of the future.

Overview of BIL and IRA Energy Provisions

Through the BIL, Congress provided more than \$62 billion for programs under the purview of the Department of Energy. The BIL requires DOE to stand up 60 new programs – including 16 demonstration and 32 deployment programs – and expands funding for 12 existing Research, Development, Demonstration, and Deployment (RDD&D) programs. The BIL also provides funding for many programs authorized by the bipartisan Energy Act of 2020, including energy storage demonstration projects, the Advanced Reactor Demonstration Program, carbon capture demonstration and pilot programs, industrial emissions demonstration projects, and more.

In the IRA, Congress invested approximately \$35.5 billion in programs administered by the Department of Energy, including \$8.8 billion for the Home Energy Rebates Program, nearly \$6 billion for industrial decarbonization, and increased loan authority for our Loan Programs Office (LPO) to help bolster burgeoning American innovation and domestic energy production.

This longer-term, demonstration and deployment-focused mandate given to the Department by Congress also reflects a departure from other infrastructure packages in recent history – like the American Recovery and Reinvestment Act – which were more focused on research and development initiatives. The impacts of these new BIL and IRA investments will touch every corner of the country through grants, formula funding, rebates, and loan programs that are thoughtfully designed and diligently administered by DOE experts, including career civil servants. Awards and selections to negotiate awards are also made by career officials via a merit-based process, with program integrity at the top of mind.

Progress in Implementation

While only a portion of BIL and IRA appropriations will be obligated in Fiscal Years 2022 and 2023, in the 18 months since President Biden signed the BIL into law and the nine months since the enactment of the IRA, DOE has been working expeditiously to deliver the greatest impact from these historic packages. As of May 3, 2023, the Department has solicited 63 Requests for Information (RFI) for input from the public on BIL and IRA program design and released a total of 71 funding opportunities worth more than \$46 billion in initial investments for BIL and IRA programs. We also conditionally awarded \$1.1 billion in credits for zero-emission nuclear energy generation, made available \$4.25 billion in formula funding to state and local governments and Tribal Nations for energy efficiency and other clean energy projects, and selected nearly \$3 billion in awards for battery material processing, manufacturing, and recycling for negotiation. While continuing to carry out important programs outside of the BIL and IRA's purviews, the Department has built new internal organizational structures and operations to best facilitate the effective and efficient implementation of these laws.

In February, DOE celebrated the one-year anniversary of our strategic departmental realignment, which created the new Under Secretary for Infrastructure and three new offices – the Grid Deployment Office, the Office of Manufacturing and Energy Supply Chains, and the Office of

State and Community Energy Programs. This Under Secretariat also includes the BIL-created Office of Clean Energy Demonstrations (OCED), as well as mission-aligned program offices, like LPO, the Office of Cybersecurity, Energy Security, and Emergency Response, the Office of Indian Energy Policy and Programs, the Federal Energy Management Program, and the Power Marketing Administrations. This new structure will maximize the effectiveness of BIL and IRA programs and boost DOE's ongoing work to reduce energy costs through low-cost clean energy resources, stimulate American manufacturing and industrial competitiveness and create jobs, increase equity and environmental justice, and support meeting ambitious climate goals.

The strategic realignment is allowing the Department to be nimbler and more responsive in its implementation of the BIL and IRA, and to meet the challenges of implementing these historic pieces of legislation. In addition, these structural changes set DOE up for success in carrying out all of our missions – and to carry them forward for the coming years and decades. The energy transition, which is already well underway, creates a huge opportunity to lower energy costs for American families, boost American manufacturing competitiveness, and maximize community benefits of new energy projects, especially in disadvantaged communities and those that have historically relied on the fossil fuel industry.

Seizing this opportunity requires active engagement with the private sector and communities as we deploy and oversee this unprecedented level of Federal clean energy investment, including in some areas and types of activities that are new to the Department. Our strategic realignment optimizes the world-class expertise of our talented staff and maximizes our ability to bring in new talent and skillsets that will serve the American public for decades to come.

We have also partnered with the Department of Transportation to stand up the Joint Office of Energy and Transportation, which aligns resources and expertise across our two departments to reach the President's goal of deploying a robust network of electric vehicle chargers, zero-emission fueling infrastructure, and providing technical assistance for zero-emission transit and school buses.

Specific Program and Initiative Highlights

Office of Clean Energy Demonstrations

The Bipartisan Infrastructure Law directed DOE to establish the Office of Clean Energy Demonstrations, also known as OCED, which was officially stood up in December 2021. OCED's mission is to deliver clean energy demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system.

In just over a year since its establishment, OCED has already announced several funding opportunities for a wide range of major programs, including seeking application for an initial \$350 million investment in the Energy Improvements in Rural or Remote Areas Program, which aims to improve the resilience, reliability, and affordability of energy systems in communities across the country with 10,000 or fewer people. The tranches of funding and cost share requirements are flexible in order to include more communities and innovative projects.

OCED also recently issued a funding opportunity for \$450 million from the BIL to advance clean energy demonstrations on current and former mine lands, recognizing that deploying clean energy projects in mining communities across the nation is an important strategy to strengthen rural economies, create new, good-paying jobs, and reduce harmful greenhouse gas emissions that jeopardize public health and pollute local ecosystems.

In developing these programs, OCED coordinates closely with other DOE offices – working across the spectrum of RDD&D. For example, OCED worked closely with MESC and other DOE partners in the design and rollout of the Industrial Demonstrations Program – a \$6 billion program supported by both the BIL and IRA to support the advancement of transformational technologies necessary to decarbonize the industrial energy sector. Concept papers for this program were due on April 21, and full applications are due on August 4.

Building a Better Grid Initiative

Earlier this year, the Department celebrated the anniversary of the Building a Better Grid Initiative, which is enabled by the Bipartisan Infrastructure Law and administered primarily by the Grid Deployment Office, or GDO – one of the new offices established under the realignment, tasked with ensuring the reliability and resilience of our electric grid. The focus of this initiative is to catalyze the nationwide development of new and upgraded high-capacity transmission lines and support investments to modernize the flexibility and resilience of the distribution system. These efforts will create a more resilient electric grid, which is essential to increasing energy reliability and resilience, giving more families and businesses access to lower-cost electricity, and enabling the benefits of the huge amount of new clean energy coming online as we move toward our 2035 decarbonization goals.

The Grid Deployment Office also announced its first Request for Proposals (RFP) on the Transmission Facilitation Program, a \$2.5 billion revolving loan fund program that will provide Federal support to overcome the financial hurdles in the development of large-scale new transmission lines and upgrading existing transmission, as well as the connection of microgrids in Alaska, Hawaii, and U.S. territories. The first RFP focuses on capacity contracts for large-scale new transmission and upgrading of existing transmission. Future RFPs will include other facilitation and financing tools and will solicit proposals on microgrids.

One of the Grid Deployment Office's first steps in implementing its other mandate – maintaining existing zero-carbon generating assets – was establishing the BIL's Civil Nuclear Credit Program, which helps preserve our existing zero-emission nuclear power fleet and save thousands of high-paying jobs across the country. Under the first round of funding announced in November of 2022, the Diablo Canyon nuclear facility located near Avila Beach, California, received a conditional award of up to \$1.1 billion in credits, paving a path forward for the facility to remain open. Diablo Canyon supports 1,500 jobs and produces approximately 15 percent of the state's clean energy. In March of this year, GDO issued guidance for the second round of the Civil Nuclear Credit Program, geared toward owners or operators of nuclear reactors at risk of closure by the end of the four-year award period, including reactors that ceased operations after November 15, 2021. Second round applications are due on May 31.

The Grid Deployment Office is also making transformative investments in grid technology and efficiency. GDO will deploy \$13 billion to finance grid modernization with a focus on improving flexibility, reliability, and resilience against the growing threats of extreme weather events and climate change, including up to \$2.3 billion over five years through State and Tribal Grid Resilience Formula Grants, which is currently open for applications.

Securing New Energy Technology

As natural and manmade threats to our critical energy infrastructure continue to evolve, DOE is using all the tools at our disposal to lock down cybersecurity vulnerabilities of today and tomorrow. America's critical energy infrastructure must remain reliable, resilient, and secure.

The Office of Cybersecurity, Energy Security, and Emergency Response (CESER) leads this mission, ensuring all relevant projects funded by the BIL incorporate secure-by-design principles. By implementing BIL provisions that allow the Department to require cybersecurity plans, DOE will ensure these energy systems of the future are built with security in mind. This effort, along with BIL cybersecurity programs such as the Rural and Municipal Utility Advanced Cybersecurity Grant Program, will improve the ability of our power grid to handle threats ranging from adverse weather events to cyberattacks.

Strengthening America's Supply Chains and Reshoring the Industrial Base

As part of the departmental realignment, DOE created the Office of Manufacturing and Energy Supply Chains (MESC), which is tasked with strengthening and securing manufacturing and energy supply chains needed to modernize our country's energy infrastructure support a clean and just energy transition, and maximize the use of goods, products, materials, and services made in America.

The nearly \$3 billion battery manufacturing and electric drive battery recycling initiative mentioned earlier is spearheaded by MESC. This BIL program will support new, retrofitted, and expanded commercial-scale domestic facilities to produce battery materials and launch battery recycling and manufacturing demonstrations. The Department is preparing to make announcements regarding a second tranche of the battery manufacturing and recycling funding later this year.

MESC also leads the Bipartisan Infrastructure Law's Advanced Energy Manufacturing and Recycling Grant Program, which opened for applications in February and will provide grants to small- and medium-sized manufacturers to enable them to build new or retrofit existing manufacturing and industrial facilities to produce or recycle advanced energy technologies – like clean electricity, fuels, or transportation – in communities where coal mines or coal power plants have closed. The deadline for full applications is June 8. Further, MESC is implementing the BIL's expansion of the Industrial Assessment Centers programs, which are based at institutions of higher education and train engineers to partner with manufacturers in the region on how to leverage technology to improve their energy efficiency and, in turn, save costs. This \$150 million expansion program opened for applications on April 7; concept papers are due May 25.

Unleashing Private Sector-Led, Government-Enabled Investment

The Bipartisan Infrastructure Law, coupled with the Energy Act of 2020, Inflation Reduction Act of 2022, and the recent FY 2023 Omnibus Appropriations Law, further empowers DOE's Loan Programs Office (LPO) to work with the business community to effectively leverage public- and private-sector dollars to set new, innovative clean energy technologies on a path to commercialization and onshore critical mineral mining and processing here in the United States. This includes new authority from the Bipartisan Infrastructure Law to allow the Department to issue loan guarantees to eligible projects that increase the domestically produced supply of critical minerals.

Along with a \$2.5 billion direct loan to Ultium Cells to help finance the construction of new lithium-ion battery cell manufacturing facilities in Ohio, Tennessee, and Michigan, LPO issued a \$102.1 million direct loan to Syrah Technologies for the expansion of its Vidalia, Louisiana, facility – a processing facility that produces graphite-based active anode material (AAM), a critical mineral used in lithium-ion batteries for electric vehicles (EVs) and other clean energy technologies. The Syrah Vidalia facility will be the only vertically integrated, largescale AAM manufacturer outside of China, bringing a key industry to the United States to support the growing EV sector –bolstering our energy security as well as our national security.

In addition, LPO recently offered three additional conditional commitments for critical mineral supply chain projects – up to \$700 million to Ioneer Rhyolite Ridge to develop a domestic supply of lithium carbonate, \$2 billion to Redwood Materials for the construction and expansion of a battery components recycling and production facility, and \$375 million to Li-Cycle for a first-of-its-kind lithium-ion battery resource recovery facility.

Through its Title 17 Innovative Clean Energy program, LPO provided a \$504.4 million loan guarantee to Advanced Clean Energy Storage in Delta, Utah. The guarantee will help finance construction of the largest clean hydrogen storage facility in the world, capable of providing long-term, low-cost seasonal energy storage and furthering grid stability.

Most recently through Title 17, LPO announced a conditional commitment to Sunnova Energy Corporation's Project Hestia for an up to \$3 billion partial loan guarantee to make distributed energy resources, including rooftop solar, battery storage, and virtual power plant-ready software available to more American homeowners. Project Hestia is expected to prioritize a focus on households in disadvantaged communities across the United States, including Puerto Rico, as well as homeowners with lower credit ratings. If finalized, the partial loan guarantee would enable Sunnova to provide loans for clean energy systems for approximately 75,000 to 115,000 homeowners throughout the United States, including its territories.

Office of Nuclear Energy – High-Assay Low Enriched Uranium

We are developing an acquisition strategy for High-Assay Low Enriched Uranium (HALEU) pursuant to Section 2001 of the Energy Act of 2020 within the context of a broader uranium strategy for the Department. The investments provided in the Inflation Reduction Act for HALEU are allowing the Department to begin helping the private sector establish a commercial U.S.

HALEU production and supply chain capability for the long term, and thus begin mitigating U.S. reliance on Russia for various uranium products, including both low enriched uranium and HALEU needed to support the current fleet and future advanced reactors. The nuclear industry's response to the Department's planned acquisition strategy and financial assistance opportunities under development has helped inform the Department's uranium strategy. We are working closely with our colleagues in the National Nuclear Security Administration and Department of Defense with an eye to enabling national security missions over the longer-term.

The Department has now established a HALEU Consortium as directed by the Energy Act of 2020 with over 50 members from across the nuclear industry. In addition, the Department has awarded a contract to continue the demonstration of a U.S. technology for producing HALEU and the production of a minimum of 900 kg of HALEU in the form of uranium hexafluoride. We understand that the project is on schedule to meet a milestone for completion of the demonstration and beginning of additional production later this calendar year. Finally, the Department is preparing to issue its draft HALEU solicitation and will consider comments from industry in preparing the final solicitation. In addition, we have initiated the National Environmental Policy Act (NEPA) process review for the program to establish a U.S. domestic supply chain for HALEU. The Department supports the continued safe operation of our existing reactors, and we support a very robust and aggressive uranium strategy for low enriched uranium and HALEU. We appreciate the Committee's leadership on this issue.

Office of Nuclear Energy – Nuclear Energy R&D Infrastructure

On October 25, 2022, the Biden-Harris Administration announced \$150 million in funding through the IRA for infrastructure improvements at the Idaho National Laboratory (INL). This funding is accelerating 11 projects at INL's two primary facilities – the Advanced Test Reactor (ATR) and the Materials Fuels Complex (MFC). When completed, these projects will improve reliability and operability of over 50-year-old infrastructure at ATR and MFC. All identified projects are underway and on schedule, starting with installation of energy efficient, cool roof technology at multiple research facilities.

Office of Energy Efficiency and Renewable Energy (EERE)

EERE is using BIL investments to accelerate its research in recycling of critical minerals and materials used for electric vehicle (EV) batteries, solar cells, wind turbines, and hydrogen fuel cell technologies. EERE has already announced selections for \$73 million in projects for recycling of battery materials and for second life of EV batteries in other energy storage applications, such as microgrids and EV charging stations. EERE also announced \$9.8 million in selections for eight universities and companies to reduce the cost and increase the efficiency of solar panel recycling processes. Under these efforts, modules designed for recycling will increase the percentage of materials that can be recovered during the recycling process and re-sold into the market.

EERE is implementing BIL provisions focused on integrating variable renewable generation such as solar and wind, which will help reach our goal of carbon pollution-free electricity by 2035. These programs will develop solutions and demonstrate that variable renewables can provide grid services such as frequency and voltage regulation that are needed to ensure grid reliability. In

addition, we are implementing BIL provisions that demonstrate how pumped storage hydropower can facilitate wind and solar grid integration and ensure system reliability.

In December, EERE released the first funding opportunity of \$45 million in a total \$225 million BIL investment to support states, local building code agencies, and other stakeholders in updating energy codes and ensuring cost-effective implementation of these updated codes at the state and local level. These BIL efforts have been coordinated with our efforts to implement the \$1 billion IRA provisions on the latest codes, including zero-emission building energy codes. More energy-efficient buildings will save money for American homes and businesses, reduce greenhouse gas emissions, and offer greater resiliency such as greater comfort during extreme weather power outages.

To coordinate planning and implementation of BIL, IRA, and our applied research programs and provisions on hydrogen, the Department formed a Joint Strategy and Execution Team that joins efforts across the Under Secretaries for Science and Innovation and Infrastructure. This effort supports DOE's Regional Clean Hydrogen Hub funding opportunity announcement (FOA) released last September and our more recent FOA released in March on clean hydrogen electrolysis, manufacturing, and recycling. As required by BIL, last September, we released a draft DOE National Clean Hydrogen Strategy and Roadmap for public comment. We are now finalizing the roadmap which outlines how DOE will work with other Federal agencies, industry, academia, national laboratories, local and Tribal communities, labor unions, environmental justice communities, and numerous stakeholder groups to accelerate hydrogen progress and market lift off. Finally, we also released draft guidance on the BIL-required Clean Hydrogen Production Standard last September. The public comment period is closed, and we are establishing final guidance for a greenhouse gas emissions target for producing hydrogen.

Scientific Infrastructure at the National Labs

The Inflation Reduction Act, in addition to lowering energy costs and building a clean energy economy, provided more than \$1.5 billion toward the Office of Science's national laboratory infrastructure. Funding from the IRA has already been distributed to infrastructure projects across the national laboratory complex, encompassing a wide variety of critically needed improvements. Some of this funding has been invested in helping make our laboratories more efficient and productive places to work, such as upgrading water, power, and HVAC services, some of which have been in service for over seven decades. These investments will ensure that the nation's "crown jewels" of science continue to lead the world in scientific advances that will impact our nation's future economy and national security.

Other IRA funding is being invested to further construction on cutting-edge scientific tools that will support scientists across the nation. For example, the Electron Ion Collider at DOE's Brookhaven National Laboratory will allow us to peer into fundamental particles and lead the world in understanding how our universe works at its most fundamental level. The high energy upgrade for the LCLS-II light source at DOE's SLAC National Accelerator Laboratory will examine the motions of individual atoms, enabling us to watch chemical reactions unfold, probe the basis for the properties of materials, and explore the cascade of events that occur in living things—all of which will advance new energy technologies. Further, other facilities are being

developed to deliver more isotopes for applications including research, medical diagnostics and treatment, enhanced cellular imaging, and deep space missions. Importantly, these new isotope production facilities will reduce our reliance on foreign countries for the nation's supply of isotopes.

This funding will help the Office of Science, and the Department of Energy as a whole, tackle and develop solutions for some of the world's biggest and most difficult challenges. Building on a long-standing foundation of innovation, this funding invests in our role as the world-leader in science and technology and secures our ability to make and apply the discoveries that will define our future.

Across other DOE Offices, the IRA provides \$150 million for infrastructure and general plant projects carried out by the Office of Energy Efficiency and Renewable Energy. This new funding will be used by the National Renewable Energy Laboratory (NREL) to modernize its research infrastructure and better equips NREL in addressing technological and economic challenges to decarbonizing the transportation, buildings, industrial and power sectors. For instance, it includes the design and construction of a new integrated biorefinery pilot plant which will speed up the research and development of sustainable aviation fuels.

On April 5, DOE announced \$150 million in IRA-provided funding to support site-wide infrastructure and laboratory modernization upgrades at all three of the National Energy Technology Laboratory (NETL) research sites, located in Pittsburgh, Pennsylvania, Morgantown, West Virginia, and Albany, Oregon.

CHIPS & Science Act

The CHIPS and Science Act was a historic bill designed to revitalize America's scientific research and technological leadership and strengthen America's economic and national security. This Committee was instrumental in the passage of the CHIPS and Science Act, authorizing activities at the Department of Energy that we are uniquely positioned to carry out. It was also the first-ever comprehensive authorization of the Office of Science, supporting fundamental and use-inspired research to sustain U.S. leadership in the sciences and engineering as the engine for American innovation. CHIPS and Science authorized \$50 billion for the Office of Science over five years to enable cutting-edge research and development in clean energy to fight the climate crisis and advanced computing to boost American competitiveness. The passage of this bill was a strong statement of support for the work that DOE, and the Office of Science in particular, does.

The President's Fiscal Year 2024 Budget Request for the Office of Science supports key activities authorized in the CHIPS and Science Act. For example, the Request establishes up to four new Microelectronics Science Research Centers. These Centers will perform mission-driven research to address foundational challenges in the design, development, characterization, prototyping, demonstration, and fabrication of microelectronics. DOE is well positioned to play a leading role in driving U.S. microelectronics competitiveness, not only because of its extensive RDD&D capabilities in microelectronics, but also because the clean energy and national security goals central to the department's mission provide opportunities to apply and scale the use of innovative microelectronics technologies.

Additionally, the Request proposes major increases in the Fusion Energy Sciences program within the Office of Science, growing this program to over \$1 billion. The increase will accelerate fusion development in support of the Administration's Bold Decadal Vision for Commercial Fusion Energy. This includes \$135 million to support partnerships with the private fusion sector. Another \$120 million will establish new fusion research and development centers focused on materials, simulations, enabling technologies, and fuel-cycle challenges that remain. Even with recent advances in fusion, significant research and innovation is needed to support the development of a fusion pilot plant to meet our clean energy goals.

The Department is committed to quickly establishing these and other important programs authorized in the CHIPS and Science Act once funding is appropriated.

In the meantime, DOE is working to make progress using existing resources where possible. On February 9, DOE launched the Foundation for Energy Security and Innovation (FESI), pursuant to the CHIPS and Science Act. On March 24, the DOE's internal FESI Working Group, which is coordinated by our Office of Technology Transitions and comprised of representatives across more than 18 DOE program offices, held a Workshop co-located at the ARPA-E Summit to collect input on DOE's efforts to establish the FESI. This event engaged over 70 participants within the philanthropy, investor, think-tank, industry and academic community. In addition, DOE is working to contract with the National Academies of Science Engineering and Medicine, as directed in statute, to provide a list of qualified potential candidates for the initial FESI Board of Directors. It is anticipated that this work will enable DOE to formally establish the FESI by the end of this year.

Research, Technology and Economic Security

With the passage of BIL and IRA, it has become more important than ever for the Department to have a comprehensive and rigorous approach to research, technology, and economic security (RTES) policy and procedures for its awards and loans. DOE developed, and continues to improve, a number of RTES measures to mitigate risk malign foreign governments pose to our scientific and technological development ecosystem, U.S. supply chains, and intellectual property.

To ensure a robust RTES approach, DOE took two major actions to address the many forms of RTES risks. In 2022, DOE established a Department-wide RTES working group to develop and assist in the implementation of RTES policies, to include those identified in the CHIPS and Science Act. Second, the Department established a new pilot RTES vetting process that will support programs in due diligence reviews and risk mitigation to ensure our national security, economic competitiveness, and technological leadership imperatives are duly incorporated in our financial assistance and loan activities. The RTES vetting team is actively working towards a centralized and risk-based approach to identify and address RTES concerns. The two-year pilot, which covers the breadth of DOE programs, provides time to refine the precise requirements to comprehensively inform changes to DOE policies. A standardized RTES policy and process for financial assistance and loans will help ensure that program offices can increase efficiency and stay focused on their missions.

The Department also recently concluded a year-long process to update the Science and Technology (S&T) Risk Matrix, which is expected to be issued in the coming months. The S&T Risk Matrix identifies and enhances the protection of critical and emerging technologies that have potential national and economic competitiveness implications.

Consistent with the CHIPS and Science Act, DOE has a policy prohibiting DOE federal and laboratory contractor personnel from participating in Foreign Government-Sponsored Talent Recruitment Programs, sponsored by foreign governments of risk. Members of Foreign Government-Sponsored Talent Recruitment Programs sponsored by a country of risk are prohibited from participating in BIL funded projects and from serving as merit reviewers. The Department also has a policy restricting DOE federal and laboratory contractor personnel participation in Other Foreign Government Sponsored or Affiliated Activities that are sponsored by foreign governments of risk. This includes activities like future employment, in-kind contributions or promises of future contributions in the form of grants, awards, funding, scholarships, and appointments. The purpose of these policies is to specifically address potential Conflicts of Interest (COI) and Conflicts of Commitment (COC) that governments of risk utilize to attempt to co-opt DOE researchers and thereby undermine U.S. national and economic security.

Oversight of Programs

Given the scope and magnitude of the Department's responsibility in implementing the BIL and IRA, it is more critical than ever for DOE to conduct stringent oversight of program design and implementation. This will protect the taxpayers' investment and keep program operations running efficiently to ensure that BIL and IRA provisions and initiatives meet goals set forth by Congress and avoid any potential for fraud, waste, or abuse wherever possible.

The first stage of implementation is program design, and in order to take advantage of the extraordinary expertise across DOE, reduce redundancies, and learn lessons from past experiences, our infrastructure team has developed a system of intra-departmental coordination for project and program design, in which staff from across program offices review and provide feedback on programs that are in the development phase.

In addition, the Office of the Under Secretary for Infrastructure has been engaging from day one and will continue to routinely engage with the Office of Inspector General (OIG) to mitigate risks. The Department's OIG plays a critical oversight function in ensuring that new programs mitigate the risk of fraud, waste, and abuse. The OIG has coordinated with Department leadership to review spending plans and has recommended prospective actions that DOE and its program offices can take to best protect taxpayer dollars and program integrity. The OIG will also continue to engage in periodic performance reviews and audits while also responding to complaints and tips on behalf of DOE employees and the general public.

Over the past 15 months, the Office of the Under Secretary for Infrastructure has coordinated 27 meetings with the OIG and DOE program officials to discuss BIL program design plans and implementation activities. These meetings are designed to provide the opportunity for an engaged, open, and transparent conversation about program design, risk mitigation strategies, financial controls, data, and tracking, as well as oversight strategies, best practices, and lessons learned.

Topics have ranged from DOE's approach to Build America, Buy America requirements, to how specific BIL provisions are being implemented. These meetings have provided DOE leaders the opportunity to share with the OIG critical process improvements the Department has made over the last decade across multiple program offices to strengthen protections and mitigate risks associated with financial assistance and loan guarantee programs and have helped DOE leaders gain insights and better understand what trends the OIG is seeing with respect to recent investigations and reports.

Conclusion

As the Department continues our implementation of investments provided by Congress through the BIL and IRA, we will remain steadfast in our commitment to be responsible stewards of taxpayer dollars and take the proactive steps necessary to prevent fraud, waste, and abuse in our programs. On behalf of the Department, we appreciate the Subcommittee's interest in this topic and the opportunity to provide testimony before you today. Thank you and we look forward to your questions.